

**System and Method for Virtual Devices  
Using a Plurality of Processors**

**ABSTRACT**

A system and method is provided to allow virtual devices that use a plurality of processors in a multiprocessor systems, such as the BE environment. Using this method, a synergistic processing unit (SPU) can either be dedicated to performing a particular function (i.e., audio, video, etc.) or a single SPU can be programmed to perform several functions on behalf of the other processors in the system. The application, preferably running in one of the primary (PU) processors, issues IOCTL commands through device drivers that correspond to SPUs. The kernel managing the primary processors responds by sending an appropriate message to the SPU that is performing the dedicated function. Using this method, an SPU can be virtualized for swapping multiple tasks or dedicated to performing a particular task.